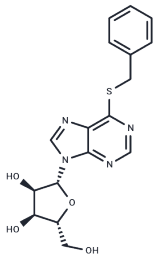
# Data Sheet (Cat.No.T26395)

TargetMol

## 6-Benzylthioinosine

### Chemical Properties



CAS No. : 6165-03-3

Formula: C17H18N4O4S

Molecular Weight: 374.42

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | 6-Benzylthioinosine, a broad-spectrum metabolic inhibitor, inhibits glucose uptake, decreases glycolysis and ATP concentration with minimal changes in ROS and mitochondrial respiration. |
| Targets(IC50) | Others,Parasite |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.6708 mL | 13.354 mL | 26.708 mL |
| 5 mM | 0.5342 mL | 2.6708 mL | 5.3416 mL |
| 10 mM | 0.2671 mL | 1.3354 mL | 2.6708 mL |
| 50 mM | 0.0534 mL | 0.2671 mL | 0.5342 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sabnis HS, Bradley HL, Tripathi S, Yu WM, Tse W, Qu CK, Bunting KD. Synergistic cell death in FLT3-ITD positive acute myeloid leukemia by combined treatment with metformin and 6-benzylthioinosine. Leuk Res. 2016 Nov;50: 132-140. doi: 10.1016/j.leukres.2016.10.004. Epub 2016 Oct 5. PubMed PMID: 27760406; PubMed Central PMCID: PMC5083204.

Zang S, Liu N, Wang H, Wald DN, Shao N, Zhang J, Ma D, Ji C, Tse W. Wnt signaling is involved in 6-benzylthioinosine-induced AML cell differentiation. BMC Cancer. 2014 Nov 27;14:886. doi: 10.1186/1471-2407-14-886. PubMed PMID: 25428027; PubMed Central PMCID: PMC4289047.

Chakrabarti A, Gupta K, Sharma JP, Yang J, Agarwal A, Glick A, Zhang Y, Agarwal M, Agarwal MK, Wald DN. ATP depletion triggers acute myeloid leukemia differentiation through an ATR/Chk1 protein-dependent and p53 protein-independent pathway. J Biol Chem. 2012 Jul 6;287(28):23635-43. doi: 10.1074/jbc.M111.312801. Epub 2012 May 23. PubMed PMID: 22621920; PubMed Central PMCID: PMC3390638.

Al Safarjalani ON, Rais RH, Kim YA, Chu CK, Naguib FN, El Kouni MH. Carbocyclic 6-benzylthioinosine analogues as subversive substrates of Toxoplasma gondii adenosine kinase: biological activities and selective toxicities. Biochem Pharmacol. 2010 Oct 1;80(7):955-63. doi: 10.1016/j.bcp.2010.06.001. Epub 2010 Jun 10. PubMed PMID: 20541538; PubMed Central PMCID: PMC2923275.